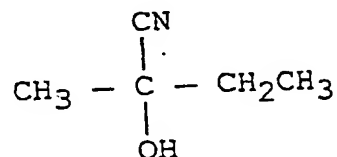


## CLAIMS

1. Process for the production of methyl ethyl ketone cyanohydrin of the formula:



characterized by the fact that the hydrocyanic acid and the methyl ethyl ketone are reacted in the presence of diethylamine as a catalyst.

2. Process according to claim 1, wherein the diethylamine is introduced at a rate of  $1 \times 10^{-3}$  to  $5 \times 10^{-3}$  mol per mol of reagent too little.
3. Process according to claim 2, wherein the diethylamine is introduced at a rate of  $1.5 \times 10^{-3}$  to  $3 \times 10^{-3}$  mol per mol of reagent too little.
- 125 A1 4. Process according to one of claims 1 to 3, wherein the reaction is conducted in atmospheric pressure.
5. Process according to one of claims 1 to 4, wherein the reaction is conducted at a temperature of  $-20$  to  $40^\circ\text{C}$ .
6. Process according to claim 5, wherein the reaction is conducted at a temperature from  $-10$  to  $30^\circ\text{C}$ .
- 125 A2 7. Process according to one of claims 1 to 6, wherein the reaction is conducted at a pH from 7 to 9.
8. Process according to claim 7, wherein the reaction is conducted at a pH of 7.5 to 8.5.
- 125 A3 9. Process according to one of claims 1 to 8, wherein the reaction is conducted with an HCN/methyl ethyl ketone molar ratio of between 0.90 and 1.10, in particular between 0.95 and 1.05.
10. Process according to one of claims 1 to 9, wherein the reaction is conducted for a

*Q3 cont.*

period of 1 to 4 hours, in particular from 1 to 2 hours.